

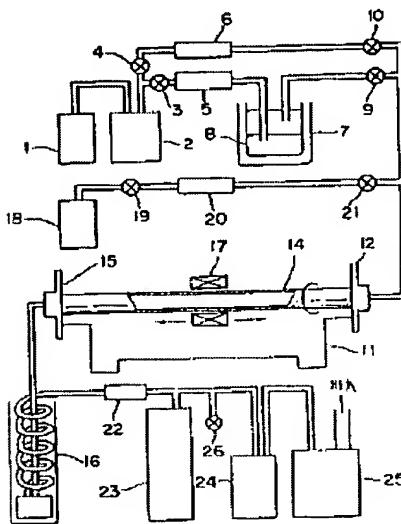
MANUFACTURE OF CHALCOGENIDE GLASS FIBER

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Abstract of JP60108341

PURPOSE: To manufacture the titled glass fibers of uniform composition at a high speed, by feeding a raw material gas into a glass tube kept under vacuum conditions, and depositing a chalcogenide glass film according to the number of scanning times of a heat source. **CONSTITUTION:** A glass tube 14 is rotated at a constant speed by a glass lathe 11, and the interior of the glass tube 14 is kept under vacuum conditions of 0.1-10Torr by evacuating the interior with a vacuum pump 24 through a filter 22 and cold trap 16. O₂ is removed from a carrier gas in a tank 1 with a purifying apparatus 2, and the purified inert gas is introduced through a flowmeter 5 into a vessel 8 to carry vapor of an organometallic compound containing a chalcogen element. The inert gas carrying the vapor, together with H₂S fed from a tank 18 through a flowmeter 20, is fed to the glass tube 14, decomposed thermally in a high-frequency heating furnace 17 moving at a constant scanning speed to deposit a chalcogenide glass film on the inner wall of the glass tube 14. Valves 3, 9, 19 and 21 are then closed to open valves 4 and 10. The interior of the glass tube 14 is replaced with the purified carrier gas, and the glass tube 14 is collapsed in the heating furnace 17 and spun into fibers.



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